CLAIMS:

1. An endoprosthesis device comprising:

an elongate radially expandable tubular stent having an interior surface and an exterior surface extending along a longitudinal stent axis; and

a stent cover on said interior surface, exterior surface or both, said stent cover being formed of a porous polytetrafluoroethylene;

wherein said porous polytetrafluoroethylene is formed by the steps of:

providing an interpenetrating network of siloxane/polytetrafluoroethylene;

removing said siloxane from said interpenetrating network leaving a porous polytetrafluoroethylene structure.

2. The endoprosthesis device of Claim 1 wherein said stent cover is on said exterior surface and said interior surface of said stent.

3. The endoprosthesis device of Claim 1 wherein said stent cover is expandable upon expansion of said stent.

4. The endoprosthesis device of Claim 1 wherein said siloxane is chemically extracted from said siloxane/polytetrafluoroethylene interpenetrating network.

5. The endoprosthesis device of Claim 4 wherein said siloxane is chemically extracted by a compound selected from the group consisting of toluene, heptane and chloroform.

6. The endoprosthesis device of Claim 1 wherein said siloxane is removed from said siloxane/polytetrafluoroethylene interpenetrating network by heating said network to a temperature of at least about 300°C.

7. A method of covering an endoprosthesis device comprising the steps of:

providing an elongate radially expandable tubular stent;

providing a porous polytetrafluoroethylene by extracting siloxane from an interpenetrating network of siloxane and polytetrafluoroethylene;

forming a stent cover from said porous polytetrafluoroethylene; and

applying said stent cover to said interior surface, said exterior surface, or both of said stent wherein said stent cover extends along the longitudinal stent axis.

8. The method of Claim 7 wherein said stent cover is applied to said interior surface and to said exterior surface of said stent.

9. The method of Claim 7 wherein said stent cover is fixed to said stent using an adhesive.

10. The method of Claim 9 wherein said adhesive is selected from the group consisting of polyurethanes, epoxies, cyanoacrylates, polyamdies, polyimides, and silicones.

11. The method of Claim 7 wherein said stent cover is fixed to said stent by a welding process, said welding process comprising heating the polytetrafluoroethylene stent cover to a temperature that is greater than the sintering temperature of the polytetrafluoroethylene.

12. A method for producing a porous polytetrafluoroethylene tube useful in medical devices comprising the steps of:

providing an interpenetrating network of siloxane and polytetrafluoroethylene; and

removing said siloxane from said interpenetrating network leaving a porous polytetrafluoroethylene structure.

13. An endoprosthesis device comprising:

an elongate radially expandable tubular stent having an interior surface and an exterior surface extending along a longitudinal stent axis; and

a stent cover on said interior surface, exterior surface or both, which is formed of a porous polytetrafluoroethylene;

wherein said porous polytetrafluoroethylene comprises a non-stretched porous structure.

14. An endoprosthesis device according to claim 13 wherein said polytetrafluoroethylene lacks node and fibril structure.

15. The endoprosthesis device of claim 13 wherein said stent cover is on said exterior surface and said interior surface of said stent.

16. The endoprosthesis device of claim 13 wherein said stent cover is expandable upon expansion of said stent.